

Amendments to the Specification:

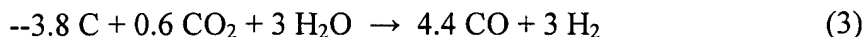
Please replace the paragraph starting on page 6, line 23 with the following rewritten paragraph:

--FIGS. 9-10 show plots of the steam reforming of a mixture of a typical industrial waste and fuel cell produced carbon dioxide at least about 20% added in the feed with ~~super-sub~~ sub-stoichiometric steam at 46-51% achieving high hydrogen and the cleanest syngas in accordance with the preferred embodiment of the present invention--

Please replace the paragraph starting on page 8, line 23 with the following rewritten paragraph:

-- The oxidized syngas, ~~consisting essentially of hydrogen and carbon monoxide,~~ (consisting essentially of hydrogen and carbon monoxide) leaves anode 42 of fuel cell 26 mostly as water vapor and carbon dioxide. This stream of oxidized syngas passes via line 48 into air-cooled condenser 50, where the water vapor is condensed into liquid water and is removed from the condenser bottoms via line 52 for reuse. Wastewater recovered from a municipal sewage system can be used in gasifier 12. However, all or a portion of the relatively pure water in line 52 can be sold or recycled and combined with the wastewater passing into gasifier 12 via line 38. The carbon dioxide gas is not condensed in condenser 50 and passes through into the condenser overhead as carbon dioxide gas to be fed back to the gasifier 12 via line 36. The carbon dioxide in high temperature gasifier 12 reacts therein with the carbonaceous feed material to form more syngas to further assist in the overall reaction. CO₂ or other greenhouse gases can be passed into gasifier 12 via line 56 to maintain the desired H/C ratio of the feedstock.

Please replace the paragraph starting on page 12, line 23 with the following rewritten paragraph:



Reaction (3) is already ~~68%~~ 40.5% by volume hydrogen (i.e. mole percent), which is ~~far better than~~ comparable to the hydrogen levels in FIGS. 3-6. Therein, one would have expected about 46% by volume H₂. Reaction (3) stoichiometry is the rough optimum, maximizing hydrogen content. Varying the stoichiometric quantities of the reactants produces less than optimum hydrogen. It is noteworthy that the addition of CO₂ to the feed reduces the requirements for steam below stoichiometric requirements. In fact, there is an optimum combination of using both CO₂ and steam.--

Please replace the paragraph starting on page 14, line 24 with the following rewritten paragraph:

--Even further improvements can be made, unexpectedly, as are shown in FIG. 9, by increasing the CO₂/ H₂O ratio from the ~~1.3 in FIG. 7~~ about 1.0 in FIG. 8 up to 2.8 in FIG. 9. This added CO₂ from the fuel cell is 25% of the waste feed. The steam used in FIG. 8 is actually a decrease to 60% in the amount of steam consumption in the process, with the advantage of the steam-reforming reactor being able to accept more CO₂, contrary to conventional thinking.--